

REMARKS

Upon entry of this amendment, claims 1, 3 and 6-19 are all the claims pending in the application. Claims 2, 4 and 5 have been canceled by this amendment, and claims 18 and 19 have been added as new claims. No new matter has been added.

I. Objection to the Drawings

The Examiner has objected to the drawings for the reasons set forth on pages 2 and 3 of the Office Action. In particular, the Examiner has indicated that the drawings do not show a circuit for discharging a residual electric charge in the light emitting element after stopping the application of the DC forward voltage, and then feeding a reverse current to the light emitting element.

By this amendment, Applicants note that the above-noted feature has been removed from claim 1. Accordingly, Applicants kindly request that the above-noted objection to the drawings be reconsidered and withdrawn.

II. Claim Rejections under 35 U.S.C. § 112, first paragraph

Claims 1-12 have been rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

In particular, the Examiner has indicated that the feature of “a circuit for discharging a residual electric charge in the light emitting element after stopping the application of the DC forward voltage, and then feeding a reverse current to the light emitting element” is not described in the application as originally filed.

As noted above, claim 1 has been amended so as to remove the above-noted feature therefrom. Accordingly, Applicants kindly request that the above-noted rejection of claims 1-12 under 35 U.S.C. 112, first paragraph be withdrawn.

III. Claim Rejections under 35 U.S.C. § 103(a)

Claims 13-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (US 2003/0098829) in view of Wei et al. (US 5,723,950).

Claim 13, as amended, recites that a residual electric charge in the organic electro luminescence element is discharged after an application of a DC forward voltage to the organic electro luminescence element is stopped, the discharge of the residual electric charge resulting in a reverse current that is fed to the organic electro luminescence element through a defective part of the organic electro luminescence element, the defective part of the organic electro luminescence element having a low resistance. Applicants respectfully submit that the combination of Chen and Wei does not teach or suggest at least the above-noted feature recited in claim 13.

With respect to Chen, Applicants note that this reference discloses a current driven pixel circuit which includes transistors 31-34, a capacitor 35, and an LED 36 (see Fig. 3A). As disclosed in Chen, when the transistors 31 and 32 are turned on and the transistor 33 is turned off, the gate and drain of the transistor 34 are electrically connected, and the voltage V_{gs} is generated having a magnitude corresponding to the current through the data line and the transistor 34 (see paragraph [0009]). In the meantime, the capacitor 35 is charged and keeps the voltage V_{gs} thereon, whereby the voltage V_{gs} succeeds the data signal DS to keep the current

through the transistors 33 and 34 lighting the LED 36 when the scan signal SS turns off the transistors 31 and 32 and turns on the transistor 33 to terminate transmission of the data signal Ds at the end of a scan period (see paragraph [0009]).

Based on the foregoing description, Applicants note that while Chen discloses the use of a current driven pixel circuit having a plurality of transistors 31-34 and an LED 36, that Chen does not disclose or suggest the above-noted feature recited in amended claim 13 which sets forth that a residual electric charge in the organic electro luminescence element is discharged after an application of a DC forward voltage to the organic electro luminescence element is stopped, the discharge of the residual electric charge resulting in a reverse current that is fed to the organic electro luminescence element through a defective part of the organic electro luminescence element, the defective part of the organic electro luminescence element having a low resistance.

With respect to Wei, Applicants note that this reference discloses the use of a driver 10 for a light emitting device 11 (see Fig. 1 and col. 2, lines 58-62). As shown in Fig. 1 of Wei, the driver 10 includes a first transistor 20 and a second transistor 21, with the first transistor 20 being connected between a transistor 25 of a current supply 22 and the LED 11 so as to allow current to flow to the LED 11 when the first transistor 20 is ON and the second transistor 21 is OFF (see col. 4, lines 21-26).

As explained in Wei, in operation, a square wave is applied to a terminal 23 which turns transistor 20 ON, thereby connecting LED 11 to the transistor 25 of the current supply 22, and turns transistor 21 OFF, thereby removing the ground from LED 11 (see col. 4, lines 40-44). To

complete the circuit of Wei, a transistor 30 is connected between a second terminal of the LED 11 and ground (see Fig. 1 and col. 4, lines 44-47).

As is evident from Figs. 1 and 2 of Wei, a current “I” in the form of a square wave 35 is applied to the LED 11 from time T_0 to T_1 , but due to the associated capacitance 12, most of the initial current flows into the associated capacitance 12 as a charging current and follows the current “Ic” waveform 36 shown in Fig. 2 (see col. 4, lines 51-58). Thus, the actual current I_D that flows through the LED 11 follows a curve shown by the waveform 37 of Fig. 2 (see col. 4, lines 59-62).

Based on the foregoing description of Wei, Applicant notes that as is clearly evident from the waveforms shown in Fig. 2, after the application of the current I is stopped, a residual electric charge is not discharged from the LED 11 (e.g., see I_D waveform 37 of Fig. 2), and a reverse current is not fed to the LED 11 (e.g., see I_D waveform 37 of Fig. 2).

As such, Applicant respectfully submits that Wei does not disclose or suggest the above-noted feature recited in amended claim 13 which indicates that a residual electric charge in the organic electro luminescence element is discharged after an application of a DC forward voltage to the organic electro luminescence element is stopped, the discharge of the residual electric charge resulting in a reverse current that is fed to the organic electro luminescence element through a defective part of the organic electro luminescence element, the defective part of the organic electro luminescence element having a low resistance.

In view of the foregoing, Applicants respectfully submit that claim 13 is patentable over the combination of Chen and Wei, an indication of which is kindly requested. Claims 14-17

depend from claim 13 and are therefore considered patentable at least by virtue of their dependency.

IV. New Claims

New claims 18 and 19 depend from claims 1 and 13, respectively. Accordingly, Applicants submit that claims 18 and 19 are patentable at least by virtue of their dependency.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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